THE VETERINARY RECORD

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Edited by WILLIAM HUNTING, F.R.C.V.S.

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THE NATIONAL VETERINARY ASSOCIATION.

The Annual General Meeting of this Association will be held this year in Liverpool from July 24 to 27, under the Presidency of Prof. W. O. Williams.

The Provisional Committee have arranged for four papers as follows :—

I. "Contagious Abortion," by Prof. Bang; discussion to be opened by Mr. Clarke, of Coupar Angus.

II. "Ticks and Insects in Relation to Animal Diseases," by W. R. Newstead; discussion to be opened by Mr. T. B. Goodall.

III. "Public Health and Veterinary Science," by Prof. Boyce, F.R.S.; discussion to be opened by Mr. T. Eaton Jones.

IV. "Animal Diseases following War," by Colonel Hazelton; discussion to be opened by Mr. Stafford Jackson.

This is a first class programme and should attract a very large attendance. The local members of the profession are busy working out a scheme of social attractions to which they intend inviting all the members who attend the meeting at Liverpool.

Mr. Arnold Richardson, the local secretary, may be applied to by anyone desiring space for exhibition of drugs or instruments and for any information concerning the meeting.

Not only does the staff of the Liverpool University take a prominent part in the proceedings, but the University will provide the necessary rooms for the meeting. Everything promises to make a record in the life of the Association. Gentlemen desirous of attending should send in their names at once to Mr. Richardson or to the Hon. Treasurer, Mr. F. W. Wragg.

MOTOR VEHICLES.

The melancholy death of Mr. Farrance from the eccentric behaviour of a motor car directs attention to this new locomotive. The machine skidded and struck the deceased whilst he was walking along the pavement of a street in Ashford. Within a few days two other fatal accidents occurred to foot passengers by the skidding of motors.

These deaths are treated by coroners juries as "accidental" and yet we are told that the motor vehicle is liable to deviate or even turn completely round whenever the road-surface is greasy. "Accidental death," we suppose, carries with it no claim for compensation, but it seems iniquitous that a man may be killed by a machine known to have a fault which developes at any time and yet have no legal claim against the owner. Redress for injury due to a horse-carriage accident is not thus easily evaded.

A CAT CASE.

It has been stated that animals, as a rule, do not live for many months upon a purely liquid diet. In this connection the following case may be of interest, the subject being a female cat now nine years old, which first came under my notice some two or three years ago.

This animal has been in the possession of her present owner's since kittenhood, and when first given solid food would, after swallowing a few pieces, stop feeding, commence retching, and almost immediately return everything that had been swallowed.

A few times during adult life solid food has been given, with the same invariable result, but the animal has never had any difficulty in swallowing liquids.

No veterinarian saw the animal when this affection was first noticed and, indeed, no surgical examination of the œsophagus has ever been made. The owners themselves diagnosed the case as one of stricture of the œsophagus, and determined to rear the animal on liquid food alone.

The attempt was successful, and the cat has lived in good health up to her present age on a diet consisting of milk, soup, and a good deal of bovril. I have treated her once or twice for slight ailments, from which she has quickly recovered.

Only in one respect does the animal differ from the majority of the feline race, and that is in size. She is perfectly well developed, in good spirits, coat, and condition, but is little, if at all larger, than a kitten of three months. Body and limbs, however, are more substantial than those of a half-grown cat, and the animal might fairly be described as an adult one in miniature. The sexual functions are still periodically active, but the owners have always succeeded in preventing connection.

I shall never know the exact condition of the œsophagus as the owners do not like the idea of a post-mortem, even in the far future, but I think the case is of sufficient physiological interest to be worthy of record.

FELIS.

A MONSTROSITY.

On January 20th last I delivered this calf, after a lot of trouble, from a roan cow. There was no hair on the body. The legs were very short and could be twisted in any direction without any trouble. There were large swellings on various parts of the body which were full of fluid. After removing the calf an abnormal quantity of fluid came away. I removed the cleansing and washed out the uterus, and she has made a good recovery. The photo does not do full justice to the article, as the day was very dull and cloudy and the calf had been buried over night, and some of the swellings were very much reduced after it had been dug up.

Hoping this may be of interest to some of your readers I venture to send it up for publication.

SIDNEY ROBSON, M.R.C.V.S.
Brailsford.

INJURY DURING COITUS.

My attention has been requested to several young bulls during the past two years which a few days after serving cows have gone off their food, are frequently found lying and exhibiting violent expulsive efforts per rectum, as if trying to get rid of something, or that hæmorrhoids were troubling. It was not until Prof. Dewar kindly suggested the seat of the mischief that I was aware what was wrong. These cases have been found very intractable, two of them were so bad that I advised slaughter. The thermometer gives indication of feverish symptoms; when made to rise the animals frequently pass small quantities of urine. The only post-mortem lesions detected were an injury to the penis about half way of its entire length, it being swollen, black, and œdematous and the surrounding tissues infiltrated with serum.

DISEASE CONVEYED BY STALLION.

Called at evening to a bay cart mare rising four years old, which had foaled three weeks and been covered eight days by an apparently healthy stallion. She was found stuck in a corner of the field not feeding, so the owner led her home and noticed that she stopped several times and strained, passing a small quantity of thin whitish matter *per vaginam*.

I found her much tucked up, pulse 64, internal temperature 105 F., respirations quiet, ears and legs fairly warm, but she was cold along the back, the coat staring and rough. Nothing but whitish discharge to be seen inside the vagina; the bowels were reported right, but I thought the dung was slimy. On walking her out she went lazily and decidedly rolled behind. Appetite was very bad. Next day the pulse was 60, internal temp. 103 F., respirations quiet, ears cold, legs fairly warm, eyes partially closed, the eyelids being œdematous, appetite very fickle, has defæcated twice, dung being slimy. Throat appears swollen and she has a difficulty in swallowing; no nasal discharge; the legs are much filled.

This patient gradually recovered, but two days later I was again sought, as the foal was very dull, ears lopped, pulsations 120, internal temperature 105, 1-5th F., ears and legs of unequal warmth, respirations little laboured, auscultation detected increased vesicular respiration, scrotum swollen to three times natural size, eyelids swollen and eyes appear little cloudy, mucous discharge from the nostrils; not sucking or eating; frequent shifting of limbs in an uneasy manner, bowels rather confined. It gradually improved.

On enquiry I learn several mares after being covered by this stallion were similarly affected although the stallion appears healthy, with no abnormality of internal temperature.

F. G. A.

EQUINE INSTINCT.

Goulburn.

An incident illustrating the homing instincts of horses has occurred; nine horses out of a mob sent by Messrs. J. W. M'Callum and John M'Intosh from Binda to Condobolin having found their way back to the former place. The distance is about 360 miles. The country is practically all enclosed. It is a marvel how the horses managed to surmount the various obstacles, such as gates, wire-netted fences, and so forth, which they must have continually encountered. The journey occupied six weeks. The horses arrived in good condition. Ten left Condobolin, but one foal did not reach Binda.—*Sydney Morning Herald.*

PHLEBITIS AND THROMBOSIS.

Delivered before the Royal College of Surgeons of England by WARRINGTON HAWARD, F.R.C.S., ENG., Hunterian Professor of Surgery and Pathology in the Royal College of Surgeons of England.

[ABSTRACT].

Coagulation of blood within the living vessels occurs under a variety of conditions of which the mode of origin is in some cases well understood and sufficiently obvious, while of others it is obscure and difficult to explain. A thrombus may be the result or the cause of inflammation of the containing vessel; it may be determined by a change in the blood or by a change in the vessel which contains the blood.

As the fluidity of the blood and its proper circulation depend upon the maintenance of the normal physiological relations between the blood and the vessels, conditions which disturb these relations will give rise to thrombosis. The most obvious of such disturbing conditions are traumatic. A wound, laceration, or contusion of a blood-vessel may lead to the formation of a thrombus by interfering with the integrity of the vessel wall. Other injuries, such as burns and fractures, neighbouring irritation or suppuration, or anything giving rise to inflammation of the vessel, are causes of thrombosis. So also degeneration of the arterial or venous coats, dilatations, aneurysms and varices, and pressure or other causes of retardation or arrest of the blood stream in the vessel and in the vasa vasorum may give rise to the formation of a thrombus. Other causes of thrombosis are changes in the blood, of which some of the most important are due to the invasion of micro-organisms. There is an increased tendency to coagulation of the blood in anæmia and chlorosis, in phthisis and other debilitating diseases, in certain acute diseases, after fevers, hæmorrhage, and long-continued suppuration, and in conditions of exhaustion.

The process of coagulation has been much discussed and the relative importance of the factors in its production is still undetermined. The presence of fibrinogen and fibrin ferment is certainly essential and probably also the presence of a soluble salt of calcium; but the source of the fibrin ferment remains a matter of dispute. Cohnheim and others have maintained that the leucocytes play the chief part in the process of thrombosis. Schmidt of Dorpat and his followers st ting that the leucocytes by disintegration form fibrinoplastin or paraglobulin and the ferment—the fibrinogen existing naturally in the blood plasma; while, on the other hand, Eberth and Schimmelbusch, followed by numerous other observers, attribute the greater importance to the blood platelets.

This much may, I think, with some confidence be stated that healthy blood contained in normal vessels consists of a fluid (the plasma) which holds in solution a proteid material (fibrinogen); in this fluid are suspended the red corpuscles, the various colourless corpuscles, and the blood platelets; that if the normal relations between the blood and the vessels are disturbed coagulation may occur; and this involves the appearance in the blood (probably from changes in the colourless corpuscles and platelets) of a nucleo-proteid, which with a soluble salt of calcium forms fibrin ferment, and this acting upon the fibrinogen of the plasma leads to the formation of fibrin which with the entangled corpuscles forms the clot.

There has been a good deal of difference of opinion as to the origin and function of the platelets, some observers maintaining that they do not exist in normal blood but are the result of the disintegration of the corpuscles; others that they may exist in normal blood but that they are derivatives of the leucocytes or of the red corpuscles; others, again, that they are the progenitors of the red corpuscles. But the tendency of recent researches has been to regard the platelets as independent elements of the blood and to attribute to them an important influence in the process of coagulation. The evidence in this direction seems to me to be convincing.

Although the blood plates were described as long ago as 1842 by Donné in a paper on the origin of the corpuscles of the blood, and various theories concerning them were promulgated from time to time, it was Bizzozero's paper published in 1882 which aroused a fresh interest in these bodies and led to much new investigation. Bizzozero maintained that the blood plates were definite and regular elements of the normal circulating blood, and though this was disputed by other observers his observations have since been abundantly confirmed.

Prof. W. Osler in his Cartwright Lectures on the Physiology of the Blood Corpuscles, published in 1886, records a number of interesting observations upon the blood plates. He agrees with Bizzozero that they are normal elements of the blood and he points out that their tendency to agglutinate and to undergo rapid changes when the normal conditions are disturbed renders them extremely difficult to observe and that this may account for the discrepancies in the descriptions of various observers. This agglutination is quite different from that of the red corpuscles; they do not form rouleaux but become fused together in a granular mass. Pr fessor Osler gives the relative number of the plates as about 1 to 18 or 20 of the red corpuscles (a lower estimate than most observers) and he found that the number varied in conditions of disease. In the formation of a thrombus he observed that the blood plates were the first elements which collect upon the vessel w.ll and that in the process of coagulation the fibrin filaments spread chiefly, though not exclusively, from the plate masses as centres. He saw no indication whatever of the disintegration of leucocytes.

Dr. Robert Muir in his papers on the Physiology and Pathology of the Blood, published in the *Journal of Anatomy and Physiology* for 1891, has given a most careful description with beautiful drawings of the blood plates, together with directions as to the best way of observing them. In fresh undiluted normal blood, examined a few seconds after withdrawal from the vessels, he found numerous blood plates among the red and white corpuscles. He describes them as round or oval disc-like bodies, about one-fourth the diameter of a red corpuscle, slightly convex, faintly granular, and colourless. His observations show that in their staining reactions, in their structure, and in their chemical composition they differ from all the other elements of the blood and that they have definite characters peculiar to themselves. In shed blood they rapidly undergo certain changes connected with the process of coagulation. They become adhesive, stellate, more granular and refractile, and are soon aggregated into small groups. After about three minutes the formation of fibrin commences, delicate threads of which appear round the groups of altered blood plates. These changes can be prevented or retarded by various methods which prevent the coagulation of the blood, such as the addition of neutral salt s lutions or exposing the blood to a low temperature. On the other hand, if a foreign body is introduced into the living vessels, or if the vessel by injury or otherwise loses its normal condition, the blood plates undergo the same changes that they do outside the vessels, adhering to each other, to the foreign body, and to the vessel wall, and becoming fused together into a granular mass, which is the starting point of a thrombus.

Recent investigations show that the first stage in the formation of a thrombus is the accumulation and viscous change of the blood platelets, which adhere to each other

and to the wall of the containing vessel; to these are soon added numerous leucocytes; fibrin ferment is set free and fibrin appears, entangling more or less of the red corpuscles. It is evident that this process will be favoured by a retardation of the blood stream, while, on the other hand, in the large arteries near the heart, where the current is powerful, small quantities of clot will be easily swept away and a thrombus less easily formed. This, moreover, is in accordance with clinical experience, for thrombosis is more common in veins than in arteries, and it is specially prone to occur in positions in which the circulation is apt to be impeded. Moreover, von Recklinghausen has directed attention to the manner in which thrombosis is favoured by the eddies produced in the blood stream by cross currents, irregularities of surface and variation in the size of the vessels, and by obstruction to the blood flow. Retardation or arrest of the blood current, although favouring the occurrence of thrombosis, is not in itself sufficient to cause it, for it has been shown by Baumgarten that healthy blood will remain fluid for weeks or months, though shut off from the circulation in a vessel between two carefully applied aseptic ligatures. But free circulation is necessary for the nutrition both of the blood and the vessels; slowing of the current, therefore, by diminishing the normal influence of the lining membrane of the vessels upon the blood cells and by lowering their vitality, may set free the fibrin ferment and thus lead to thrombosis. Eberth and Schimmelbusch, moreover, have observed that in the normal blood current the platelets travel with the red corpuscles in the axial stream, while the white cells move in the outer, slower stream. A slight retardation leads to an increase in the number of white cells in the outer zone but not to thrombosis; but on a further slowing of the current the platelets are found in the peripheral stream and in contact with the endothelium, and it is upon these collections of platelets that the fibrin is first deposited which is the commencement of a thrombus.

It would seem then that thrombosis may depend upon a variety of conditions and is usually due to a combination of several. Lesions and degeneration of the vessel walls, impaired nutrition of the endothelium, retardation of the blood current, changes in the composition of the blood and in the proportions of its formed elements, the invasion of micro-organisms—any or all of these may play a part in the process, the predominant factor varying.

If the movement of the blood in a vessel is arrested, as by a ligature, the coagulum formed from the stagnating blood consists of fibrin, together with both red and white corpuscles, and resembles microscopically a clot formed in blood outside the vessels; it is of red colour and is spoken of as a *red* thrombus. If the thrombus is formed from blood in motion it is usually of a grey colour (the so-called *white* thrombus) and consists of fibrin, leucocytes, and blood platelets. A clot thus formed may, however, entangle a variable number of red corpuscles which will give to it a more or less red colour. The softening which occurs in the centre of these thrombi is due to the liquefaction of the blood plates. Such a thrombus starting in a vein from some point of injury or, as often happens, forming above the point of attachment of a valve, extends to a variable distance chiefly in the direction of the blood current. Thrombosis may be simultaneously of wide extent, or the process may spread gradually along the vessel towards the heart, obstructing long tracts of vein and giving rise to very extensive propagation of the thrombus. Extensive thrombi thus formed will present alternations of red and white thrombus. The original white thrombus extending across the vessel forms a barrier to the blood current, stagnation occurs as far as the next branch, and thus a red thrombus is added to the white; upon this the circulating blood deposits fresh white thrombus until stasis and coagulation again take place. A third variety of thrombus is the *hyaline* thrombus which consists of colourless, translucent, homogeneous material which stains after the manner of fibrin. This is found chiefly in the capillaries and small vessels and is usually associated with infective diseases. The small vessels of acutely inflamed tissues may be found obstructed by thrombi consisting almost entirely of polynuclear leucocytes; or sometimes, as in hepatised lung, the vessels may be occupied by purely fibrinous coagula. But these are of *inflammatory origin* and of quite different significance to the thrombi above described.

If there is no infection of the blood a thrombus may become organised or it may undergo disintegration and be carried away in the blood stream without doing any harm.

The organisation of a thrombus is accomplished by the shrinking and cracking of the clot, into the fissures of which leucocytes pass from the vessel wall, and capillaries extend from the vasa vasorum. By this means the clot is gradually absorbed and its place taken by newly formed connective tissue which is adherent to the lining of the vessel and which, shrinking after the manner of scar tissue, becomes less and less vascular until only a fibrous cord remains. The thrombus thus organised may adhere in a layer of varying thickness to the vessel wall or may form a plug completely occluding the vessel, or a channel may be formed through its centre or between the clot and some part of the vessel wall, leaving the vessel with a diminished lumen. If disintegration of a thrombus occurs softening begins in the centre or at the end of the clot and extends until the whole is broken up into a finely granular débris which is carried away in the circulating blood. This is a process which is frequently to be observed, especially in varicose veins, and does not usually give rise when the clot is not infective to any serious symptoms. But if the whole, or a considerable fragment, or a clot becomes dislodged and carried into the circulation dangerous embolism may occur with results that will be described later.

Softening commencing in the centre of a thrombus does not always lead to its complete disintegration but may result in the production of a thick greasy brown fluid completely shut in by the outer layers of the thrombus. The inclosed fluid somewhat resembling, and formerly mistaken for, pus consists of the granular and oily débris of the broken-down corpuscles coloured by blood pigment. Occasionally calcareous changes occur in thrombi giving rise to phleboliths—concretions consisting principally of phosphate of lime with about 20 per cent. of proteid matter and a little sulphate of lime and potash. Although sometimes met with in arterial thrombi they are found chiefly in the dilated pouches of the veins of the lower extremities and pelvis.

In septic thrombi softening, disintegration, and true suppuration may occur, and fragments of the infected thrombus are carried in the blood stream to distant parts, where as septic emboli they become centres of fresh infection.

In the heart thrombi form upon the inflamed valves, forming the vegetations of endocarditis. Thrombi are also found in the cavities of the heart, especially in the auricular appendices, sometimes attached and sometimes free, in the latter case giving origin to the so-called ball thrombi. Cardiac thrombosis, however, falls under the care of the physician, and I shall not further allude to it.

Arterial thrombosis.—This is met with in connection with wounds, injuries, and degenerations of the arterial walls. It may occur gradually, as in aneurysms, or suddenly as a result of embolism or other mechanical obstruction to the blood current. In wounds and injuries

of arteries the resulting thrombus is the result partly of mechanical obstruction to the blood stream owing to the projection into the lumen of the inner coat and partly of the interference with the normal influence of the intima. The same may be said of the application of a ligature. In the case also of atheromatous and other degenerations of the arterial coats and in aneurysms the destruction of the intima and the roughening of the inner surface of the vessel are largely concerned in the deposition of mural clot, but some retardation or irregularity in the blood current seems to be also necessary.

Thrombosis of arteries has been observed in connection with various acute diseases, especially influenza, enteric fever, typhus fever, and pneumonia. Here, again, it is much less common than in the veins and is found chiefly in the arteries of the lower extremities. Cases have also been recorded by Dr. Dickinson of death from rapid thrombosis of cerebral arteries in which there were no disease of the vessels and no acute illness. Mr. Jonathan Hutchinson has also recorded instances of the sudden occlusion of the femoral and other large arteries by thrombosis in which he could discover no evidence of disease of the vessels.

In septic conditions it has been observed that the blood platelets are abnormally numerous and a primary arterial thrombosis may occur in which the infection of the vascular wall is secondary.

Arterial thrombosis occurs most frequently in the lower limbs but does not exhibit the preference shown by the veins for the left side. The symptoms are chiefly those due to obstruction of the vessel and will depend very much upon whether this takes place rapidly or slowly and also upon the position and importance of the artery concerned. When the artery is rapidly blocked the symptoms resemble those of embolism, from which it is often impossible to distinguish them. When the thrombus is of gradual formation there may be sufficient opportunity for the development of a collateral circulation to prevent any serious results, though this will, of course, depend upon the condition of the arteries generally and their capacity to respond to the call upon their development. The gradual obliteration of an artery may only be recognisable by the increasing hardness and thickness of the vessel, its want of elasticity and the feebleness of its pulsation. There are often, however, some pain and tenderness felt in the course of the artery. When more rapid arterial thrombosis occurs there is usually acute pain and the artery is tender to pressure, the nutrition of the limb is seriously imperilled, and, as in embolism, unless a collateral circulation is soon established gangrene results.

Senile gangrene is usually caused by thrombosis of the small terminal arteries, the first symptom of which is often acute pain. Doubtless arterio-sclerosis and feeble circulation play an important part in its production and the mischief is often started by some slight injury or inflammation, but the thrombosis is the immediate cause. It is important to recognise this, because if the condition is seen and appreciated at its commencement the danger may be averted by appropriate treatment. The reason why thrombosis is not more common in connection with arterio-sclerosis is that the heart is usually hyperthrophied so that the arterial resistance is overcome by the increased heart power.

Venous thrombosis.—The conditions under which coagulation of the blood occurs in the living veins are very similar to those which lead to the formation of coagula in the arteries, but venous thrombosis is more common than arterial. It has already been pointed out that any impairment of the nutrition of the endothelium of the blood-vessels leads to the formation of thrombi upon the vessel wall, and such an impairment of nutrition occurs whenever the rapidity of the circulation is materially diminished for any length of time. "This," as pointed out by Dr. W. S. Lazarus-Barlow, "depends upon the fact that the intima, including the endothelial cells, unlike the rest of the vessel wall, derives its nutriment from the blood in the lumen of the vessel and not from that conveyed by vasa vasorum. In most cases a diminution in velocity of blood flow is the proximate cause of the thrombosis."

In wounds, injuries, and ligature of veins coagulation of the blood occurs, partly as a consequence of the mechanical disturbance of the blood flow and partly from the interference with the integrity of the endothelium. It occurs more readily than in wounds of arteries because of the slower and less forcible blood stream and perhaps also because of the greater coagulability of the venous blood.

Degeneration of the venous walls, dilatations and varices and anything producing obstruction or retardation of the blood current, are causes of thrombosis by disturbing the normal relations between the blood and the venous endothelium. Inflammation of veins is a common cause of thrombosis and owing to the thinness of the venous coats any surrounding inflammation invading the outer tunic of the vein is easily conveyed to the endothelium. This is one reason for the greater frequency of venous as compared with arterial thrombosis. The presence of micro-organisms either in the blood or the venous wall will give rise to thrombosis, as is frequently seen in septic inflammations. Venous thrombosis also frequently occurs in consequence of changes in the blood and in connection with various acute and chronic diseases and in conditions of great debility.

When coagulation occurs in a living vein it is often difficult to say whether the thrombus is the cause or the result of phlebitis. If a vein is obstructed by a thrombus the nutrition of the endothelium at once suffers, and if the clot contain micro-organisms they will soon invade the intima, the resistance of which will be already lowered and an endophlebitis will ensue. But, on the other hand, there are numerous cases in which it is certain that the changes in the vein precede the thrombosis; for instance, in the chronic inflammation which occurs in connection with varix, in syphilitic endophlebitis, in tuberculous invasion of the vein, and in other degenerative changes. So also in septic inflammation spreading to the outer coat of a vein from a neighbouring focus invasion takes place from without inwards and thrombosis does not occur till the intima is reached.

The most serious of these conditions are those of septic origin. Here the presence of micro-organisms gives rise to coagulation and the clot has an infective character which it communicates to any part to which it is carried. The process may begin in inflammation of the outer coat of a vein originating in a septic or suppurating wound, or in an infective focus as in middle ear disease or acute necrosis of bone; this spreading to the inner coats leads to endophlebitis and consequent thrombosis. Or the organisms may invade the intima from the circulating blood or from an infected thrombus brought from a distant part. In these septic cases, whichever the mode of origin, the coats of the vein are always found much thickened.

In the light of recent investigations it seems probable that many of the so-called idiopathic or spontaneous thromboses are of microbic origin, but there are some in which no micro-organisms can be found in the thrombi; while, on the other hand, bacterial invasion of the wall of a vein may occur without the formation of a thrombus.

Septic phlebitis is a condition attended by serious symptoms and grave danger. The severity of the symptoms will depend upon the virulence of the infection, the susceptibility of the individual, and the position of the mischief.

In the acute form of suppurative phlebitis the wall of the vein is invaded by pyogenic organisms, coagulation

occurs in the inflamed vein, and the thrombus is itself infected and by its softening carries infection into the blood stream, giving rise to septicæmia and pyæmia. In this connection I would remind you of the admirable paper communicated by Mr. Arnott to the Royal Medical and Chirurgical Society in 1828, in which he showed the relation between the primary and secondary affections in phlebitis. If a superficial vein is affected it is observed to be swollen and tender and the skin over it shows a red line. These conditions tend to spread rapidly along the vein in the direction of the blood stream. If a deep vein is attacked pain is felt in the part, soon followed by swelling, tenderness, and suppuration. The constitutional symptoms are severe; the temperature and pulse rise rapidly, rigors supervene followed by profuse sweating, the tongue is dry, appetite is lost, and there may be delirium. To these symptoms are soon added those of general pyæmia—rapid oscillations of temperature, rigors, sweating, and disseminated suppurations. Such cases usually end fatally, partly by the general poisoning of the blood and the consequent fever and exhaustion, and partly by the occurrence in important organs, especially the lungs, of centres of inflammation and suppuration.

When the infection is less virulent the symptoms are correspondingly less severe and many gradations are met with down to cases in which, though there is a well-marked phlebitis, the symptoms of infection are but slight. I have no doubt that some of the cases of so-called idiopathic phlebitis are of this nature. The infection may be of a low degree of virulence and the subject may have a high resisting power or immunity. Moreover, the infected thrombus may be isolated from the general circulation and so produce only local effects. In other cases the phlebitis may become manifest, while the source of the infection may be obscure.

In some cases of chronic pyæmia in which large superficial collections of pus occur indubitable evidence of thrombosis may be observed, and on opening the abscesses the pus is seen to be mixed with broken-down clot. In all cases of phlebitis it is therefore well to seek for a source of infection, for in many instances in which the disease begins with but slight constitutional disturbance symptoms of severe infection subsequently develop.

Pulmonary embolism. — Pulmonary embolism may occur in any case of phlebitis or thrombosis in the course of slight as well as severe attacks. The second and third weeks are the period most liable to this danger, which is not often met with after the sixth week. Nevertheless, fatal embolism may be produced by violence, such as a blow or severe pressure applied to a blocked vein, at much later periods.

The detachment of a large venous thrombus and its lodgment in the main trunk or in one of the chief divisions of the pulmonary artery may cause almost immediate death. This detachment of clot usually ensues upon some movement of the limb or of the body, some sudden change of posture, or some pressure upon a blocked vein. Thus sitting up in bed, which involves flexion at the groin, stooping, kneeling, or the movements concerned in leaving or returning to bed have often been the immediate cause of this disaster. Sudden and intense dyspnœa occurs with great pain in the chest, cyanosis, and feeble irregular pulse, followed directly or in a few minutes by death. When smaller branches of the pulmonary artery are blocked the symptoms are less severe and either gradually increase and lead to a fatal end or may diminish and be followed by recovery. In other cases a localised pneumonia with hæmorrhagic expectoration may ensue. I have known this sequence of symptoms to recur several times with eventual recovery; but the condition is, of course, one of grave danger, demanding the most absolute quiet on the part of the patient.

Pulmonary thrombosis.—Obstruction of the pulmonary artery may also occur from thrombosis. It is probable that in some of the cases recorded as instances of pulmonary embolism the obstructing plug may have been formed *in situ* and have been really due to thrombosis. In many cases the clot forms gradually and is situated in the smaller branches so that there are no sufficiently characteristic symptoms to enable a diagnosis to be made during life. Sometimes, however, a thrombus may form in a large branch, giving rise to symptoms similar to those of embolism—severe and distressing dyspnœa, faintness, cyanosis, and great circulatory disturbance. These symptoms may subside and recur at varying intervals with each addition to the clot until at last the complete occlusion of the vessel brings about a fatal result. More rarely thrombosis of the main trunk or its primary divisions is a cause of sudden death.

Pulmonary thrombosis occurs under similar conditions to thrombosis of other arteries and veins, especially in feeble and cachectic states with lowered vitality and weak circulation, and although degeneration of the coats of the vessel is much less common in the pulmonary than in the other large arteries, yet such disease may be the starting point of a thrombus.—*The Lancet.*

"IMPURITIES IN MILK."

Mr. J. S. Lloyd, the Veterinary Inspector for Sheffield, lectured under the auspices of the Microscopical Society on "Impurities in Milk," the lecture being delivered at the Central School, Leopold Street, on Tuesday, Feb. 20. Dr. Godfrey Carter, the President of the Society, presided over a large attendance, comprised chiefly of those interested in the milk trade.

Mr. LLOYD began his lecture by describing the structure of the cow's udder, and the process of secretion. Chemical composition showed that milk was made up of a very watery solution, in which was emulsified an uncertain amount of fat, and in which was dissolved a fairly definite amount of milk-sugar, casein, and salts, the latter combination forming what the analyst termed non-fatty constituents. A definition of cream, separated or skimmed milk, butter milk, and whey, was next given, and the physical and chemical characters of each were touched upon, the lecturer passing on to show what was revealed by examining milk, both with the naked eye and the microscope. Impurities, as sometimes seen by the naked eye, were in colour stated to be caused by blood, inflammatory matter, etc.; as seen in consistency there could be clotting, due to sourness, or or ropiness, caused by bacterial growth; as found by tasting different taints could be caused by bad food, bad water, foul air, uncleanliness, and medical treatment of sick cows; as discovered by smell, odours in milk could be caused by bad smells from decomposing and insanitary surroundings, or by absorption of such odours as those of turpentine, camphor, paraffin oil, etc., and from being in close proximity to such articles as fish. The microscopic examination of milk showed that it was composed of watery fluid, in which were floating large numbers of fat globules, varying in size. The microscope also revealed in contaminated samples such bodies as blood and pus-cells, starch granules, epithelial cells, hairs, fibres, moulds, and yeasts, in addition to large numbers of bacteria which might be capable of producing disease in the consumers of milk, but which in a large majority of instances were required to produce the changes necessary to the making of good butter and cheese. It was pointed out that disease-producing germs in milk could be, and were, derived from such diseases of the cow's udder as tuberculosis (specimens of which were on exhibition), common inflamma-

tion or "garget," sore teats, and some of the animal contagious diseases such as anthrax. Milk was also occasionally the medium by which epidemics of scarlet and typhoid fever and diphtheria, etc., were conveyed and spread from a human source. The sources of contamination, as arising in the cowshed or adjoining premises, were stated to be (1) the cow, (2) the milker, (3) the cowshed, (4) the dairy, and the common methods by which milk became infected were dealt with under the above heads *seriatim*. The responsibilities of the milk purveyor in a legal sense in spreading disease amongst his customers were exemplified in accounts of different cases where damages had been given in courts of law, whilst accounts were noticed of prosecutions being taken where milk was unfit for food owing to filth contamination. The lecturer next dealt with the precautions necessary to be taken by the cowkeeper to minimise impurities in milk, and urged that greater attention should be paid in detail to procure cleanliness of the cows, cowsheds, and dairies, of the milkers and attendants, and of the milk utensils, whilst in passing he gave a number of hints by means of which cleanliness could be increased. The processes of sieving, cooling, pasteurising, and sterilising milk, were next touched upon, and the lecturer enumerated the different regulations in force in some districts for the purpose of protecting the milk supply of the public. It was pointed out that there was a great want of uniformity in the inspection work done under the Dairy Orders in different districts, whilst owing to their enforcement being entirely voluntary on the part of local authorities, it was more the rule than the exception for them not to be put in force at all in rural districts. It was also stated that whilst the tuberculous milk clauses required notification, and isolation of cows known to be suffering from tuberculosis of the udder, and provided a penalty for the sale of the milk from such cows, there was no provision made as to the ultimate disposal of these cows, and nothing to prevent their sale, either privately or publicly, and their removal from known premises to unknown, where they could be again used for producing milk for sale for human consumption. In conclusion, the lecturer suggested a number of remedies dealing with the defects, and advocated compulsory registration of all milk producers and purveyors, uniform and practical inspection of all dairy premises, notification of all diseases of the udders of milking cows, powers to seize tuberculous cows being in a wasting condition or having tuberculous udders, and the scheduling of tuberculosis in cattle as a contagious disease of animals. He pointed out that in other countries dairy regulations and laws relating to contagious diseases of animals were often more stringent than they were in the United Kingdom, and stated that in order that the public might have proper control over the milk they drank, and the flesh they ate, it was absolutely necessary that there should be established a veterinary service of public health, as established in Italy, to deal with the existence of disease in animals, just as there was a medical service of public health to deal with diseases in human beings.

At the close of the lecture discussion was invited, and one or two of those who took part displayed some warmth, especially regarding certain samples of milk, dealt with in the course of demonstrations. One milk-seller complained that children in houses, where there was scarlet fever, were not allowed to go into cowsheds, and asked why a sanitary inspector should be permitted to do so. The lecturer replied that he saw no reason why the inspector should carry infection elsewhere.

Mr. John Smout Lloyd, V.S., Veterinary Inspector to the Corporation of Sheffield. Born at Oswestry, 1864, son of Richard Lloyd, veterinary surgeon and farmer. Educated at Salop School, Oswestry, and the Dick's Royal Veterinary College, Edinburgh. Qualified a Member of the Royal College of Veterinary Surgeons, 1885; Fellow, 1903; honorary examiner to the College, 1904. After a distinguished college career, Mr. Lloyd practised as a veterinary surgeon for 12 years in his native town; in 1899 he took a public appointment at Burnley, in 1900 at Manchester, and in 1901 at Sheffield. A frequent contributor of papers on veterinary medicine to learned societies and publications. Has done valuable honorary work in connection with agricultural shows in the district, the May Horse Parade, the Medical Charities' Carnival, etc. Mr. Lloyd is fond of hunting, has bred prize hackneys, and has several times acted as judge at horse shows.—*Sheffield Daily Telegraph.*

A "Cruelty" Case at Bath.

At the Bath City Police Court, on Thursday March 8th, the Mayor in the chair, Arthur Lambert, of 7 Longmead Street, Twerton, was summoned for ill-treating a horse by working it while in an unfit state on the 3rd inst. Thomas Bolwell, of 28 Brook Road, Twerton, was summoned for having caused the animal to be so worked.—Both defendants pleaded not guilty. —Mr. Basil Dyer prosecuted on behalf of the Bath and Somerset S.P.C.A., and Mr. Francis Glover appeared for both defendants.

In opening the case for the prosecution Mr. Dyer said the animal was the property of Mr. Welch, Bolwell being the yard foreman, and Lambert was the carter in charge of the animal.

Sergt. Crane deposed to seeing the horse in Milsom Street on Saturday, March 3, in charge of the defendant Lambert. It was in single harness, and attached to a cart laden with granite. Witness noticed that the animal's hind legs appeared to be trembling, and also noticed a sore place under the pad on the right side. There were also several marks on the shoulders which witness described as "proof lumps." The animal was in poor condition, and in witness's opinion unfit to draw the load to which it was attached. In company with Inspector Doyle, of the Bath and Somerset S.P.C.A., whose attention witness drew to the animal, he removed it to Mr. Eve's yard in Broad Street. Cross-examined by Mr. Glover, witness said that his attention was attracted by the horse stopping in the middle of Milsom Street. The defendant Lambert said to witness, "He won't go on, he's always like this. He's waiting for the other cart to come up, to walk behind it." When another of Mr. Welch's carts came up the animal started to follow it without requiring the whip. The animal was a large one, and had at one time been powerful.

Wallace Fullbrook, employed at the Corporation weighing-engine, gave evidence that the total weight of the loaded cart was 2 tons 1 cwt.

Inspector Doyle described the condition of the horse, which, he said, was blind in the near eye, and had old sores on both shoulders, a small one under the pad, and a fresh sore under the crupper strap, which was pressed upon by the harness. The defendant Lambert told witness, "Bolwell told me to take the horse to the G.W.R. Station to take a load of stone to London Street." The defendant Bolwell stated that Lambert had taken a cart which was already loaded, to save himself trouble. Had he not done so, the load would have been 5 cwt. less. On Monday witness saw Mr. Welch, who said, "What's the matter with the horse? I know it's poor. It usually fetches the manure from the boxes in the street. It doesn't usually fetch coal." Witness had seen the animal again on Wednesday being exercised by the defendant Lambert, and found that the five days' rest and attention had greatly improved

its condition.—On the suggestion of Mr. Dyer, the magistrates decided to view the horse in company with Mr. Eve, the veterinary surgeon. The animal was put to a variety of tests.

Henry Eve, M.R.C.V.S., of Broad Street, was next called. He said when he examined the horse on Saturday, in company with Mr. James, of Corsham, it was in a poor condition, but grooming and five days' rest h d greatly improved it. The animal was aged, and weak in the hind legs, and in witness's opinion was suffering from disease of the spine. The ribs were cavernous, and though the horse when examined had been out of the shafts an hour, it still trembled. The sores appeared to be due to eczema. It was not, in witness's opinion, fit to draw a load of over two tons. Cross-examined by Mr. Glover, witness said that as the result of that day's examination he found that the animal was still unable to back a cart as a healthy animal would, and showed unmistakable signs of spinal disease. The affection was not that known as "shivers." In reply to the Deputy-Clerk (Mr. R. H. Whittington) witness put the age of the horse at from 12 to 17 years.

Mr. Isaac James, M.R.C.V.S., of Corsham deposed to examining the horse on Saturday in company with Mr. Eve. He corroborated the former witness's evidence, adding that the pulse was low, showing weakness and general debility. For a cart-horse the animal was a high-couraged one, and might be urged to do almost anything. The spinal disease was an incurable one. He could say emphatically that the animal was then unfit to do the work to which it had been put, though now the sore on the back had healed it might be worked without causing pain. Questioned by Mr. Glover as to whether the animal's stoppage in Milsom Street was caused by jibbing, witness thought not. In reply to Mr. Whittington, witness said that the animal might now be used for light work; he was fit for "straightforward trace work" but not for the shafts of a cart. The sores must have been there before the animal was harnessed.

For the defence Mr. Glover contended that the magistrates must be satisfied of guilty knowledge on the part of the defendants before convicting them, and expressed himself prepared to call expert evidence that the horse was sound, and mentioned that Mr. Welch's men had strict orders to bring their horses back to the stables if anything went wrong.

The Magistrates intimated their intention to proceed with the case, and Stephen Codrington, M.R.C.V.S., of Chipping Sodbury, veterinary surgeon to the Duke of Beaufort, was called. He described the animal as "not of a fat nature, but in heavy, hard condltion, fit for work of any sort." Witness did not think the animal could have been unfit for work five days ago. Witness could find no trace of spinal affection. The animal was given a severe trial by getting him to hold back a load of two tons on a gradient of one in five, and also making the animal back the same load a few yards up the hill. The trial took place on the incline leading to the Cattle Market, Walcot. The animal did appear to be a jibber. The sores referred to witness described as "harness wear," but that under the crupper appeared to cause slight inconvenience. Witness had seen the animal for the first time that day, but could not think from its appearance that last Saturday it was unfit for work. Cross-examined by Mr. Dyer, witness admitted that the action of the hind legs as described by Inspector Doyle, were identical with the indications of spinal disease. In reply to Mr. Whittington, witness described spinal disease as a progressive one. He knew of no case of recovery.

George Fisher, M.R.C.V.S., of Brislington, deposed to being present with Mr. Codrington when the test was made that morning. He described the horse as "practically sound, and fit for heavy draught work." He should not think that to work the animal on Saturday was an act of cruelty. Witness admitted that for the horse to have acted as described by Inspector Doyle, was an indication of spinal complaint.

George Wilfrid Haydon, M.R.C.V.S., of Midsomer Norton, stated that he could find no evidence of spinal disease, and considered the animal fit for any work. He had examined the animal for spinal disease only.

William John Caple, of Bathford, said that he considered the horse fit for work. He saw the animal stopped on Saturday, but did not think its gait was peculiar, nor did he notice any sores.

William Alfred Welch, M.R.C.V.S., described the horse as healthy, stating that he gave his father's foreman instructions to work the animal. He had described the case as a frivolous one to Mr. Curtis.

Henry Hitchcock, the previous witness's smith foreman, stated that he had shod the animal for the past four years, and considered it healthy.

The defendant Lambert stated that the horse was a jibber, but to the best of his knowledge there was nothing the matter with it. He took the animal out on Saturday by order of the defendant Bolwell. Orders were posted in the stables warning carters not to take out horses that were lame, or had sores.

The defendant Bolwell stated that he had 15 cart-horses under his care, and had a life-long experience of horses. He admitted telling the defendant Lambert to take the horse out. When the horse went out on Saturday morning it was in good condition. Witness could find no trace of disease or sores, and considered the animal fit for any kind of work.

Having retired for consideration, the Chairman said the magistrates were of the opinion that there was not sufficient evidence to show that the defendants considered the horse unfit for work, and the case would be dismissed.—There was some applause in the gallery at this decision.—*The Bath Herald.*

Alleged Poisoning of Cattle.

At the Grimsby Police Court recently John Robert Bingley, a labourer, of Cleethorpes, was charged on remand with maliciously killing three cows on the 18th inst., the property of John Smith, farmer and contractor, Highgate, Cleethorpes.

Prosecutor stated that the prisoner, who was in his employ, had been in the habit of feeding the cattle. On the night of the 18th inst., whilst in bed, prisoner knocked him up and said two of the cows were dead.

Mr. J. H. Loft, veterinary surgeon, was called in as they all refused to eat. Upon examining the hay, turnips, and bran in the bins, witness found that they smelt of carbolic acid. Two gallons of carbolic in tins were in the place, and these were found to be empty. They were marked "poison." Four cows in all died from the carbolic acid poisoning, and were valued at £80.

Mr. J. H. Loft, veterinary surgeon, said he had made post-mortem examinations of the carcases of the cows and found they had all died from carbolic acid poisoning. The turnips, bran, and hay in the stomach and in the bins all contained carbolic acid.

Inspector Hill stated that prisoner admitted mixing some of the poison amongst the bran in the binns, and gave some of it also to the horses, adding "I wanted to get away from Smith's and go into the Union for a rest."

Prisoner said he was sorry he did it, but would not have done so had he known it would kill them. He was committed for trial.—*Hull News.*

DISEASES OF ANIMALS ACTS 1894 TO 1903. SUMMARY OF RETURNS.

Period.		Anthrax.		Foot-and-Mouth Disease.		Glanders (including Farcy)		Rabies. Cases Confirmed.		Sheep Scab.	Swine Fever.	
		Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Dogs.	Other	Out-breaks	Out-breaks.	Slaughtered *
GT. BRITAIN. Week ended Mar. 17		19	21			20	30			13	8	13
Corresponding week in	1905 ..	26	31			19	48			36	13	57
	1904 ..	17	26			34	73			30	23	134
	1903 ..	12	23			27	44			32	15	50
Total for 11 weeks, 1906		217	289			237	417			222	190	841
Corresponding period in	1905 ..	228	328			250	474			504	125	475
	1904 ..	228	315			305	614			877	280	1698
	1903 ..	170	273			251	466			953	281	1261
IRELAND. Week ended Mar. 10		..	..	..	..	..	2	..	..	2	..	28
Corresponding Week in	1905 ..	..	..	..	..	..	..	..	..	14	..	9
	1904 ..	..	..	..	..	..	..	..	..	14	5	85
	1903 ..	..	..	..	..	..	..	..	..	22	1	82
Total for 10 weeks, 1906		2	2	..	..	2	7	..	..	109	7	186
Corresponding period in	1905 ..	..	..	..	..	6	12	..	..	166	19	196
	1904 ..	1	1	..	..	2	9	..	..	260	43	555
	1903 ..	..	..	..	..	1	2	..	..	287	13	333

Board of Agriculture and Fisheries, Mar. 20. 1906.

Epizootic Lymphangitis: Week ending Jan. 27, 1906, 1 case.

Department of Agriculture and Technical Instruction for Ireland, (Castle Street), Dublin, Mar. 14, 1906.

NOTE.—The figures for the Current Year are approximate only. * As Diseased or Exposed to Infection

Cattle Cake and the Spread of Anthrax.

Professor Penberthy, of the Royal Veterinary College, London, lectured on anthrax to a meeting of farmers held on Feb. 19th at Knutsford. He referred to the increase in the number of cases of anthrax in Cheshire and said that the cause for some of the alarm was apparent rather than real, as the returns showed that in most cases only one animal was affected in any particular outbreak. They were bound to admit that anthrax was introduced into this country from abroad in artificial and natural foods. But it was almost impossible for farming and breeding operations to be carried on here without the use of foreign cake, etc. The only measure that seemed to him at all practicable to prevent the spread of the disease was that a guarantee should be obtained from the manufacturers that the cake during the process of manufacture had been subjected to a temperature sufficiently high to kill anthrax germs.—*The Lancet.*

Alcohol and Anthrax.

To the Editor of *The Yorkshire Daily Observer.*

Sir,—In your issue of March 3rd appears a report of a lecture given by Dr. F. W. Eurich, before the members of the Bradford Scientific Association, in which he is stated to have said "that Algerian sheep were immune from anthrax, but if they were given a dose of alcohol they were not immune, and would quickly die from the disease. This is very important, as it was interesting to note that the victims of anthrax in the Bradford factories were not abstainers, but generally drunkards." There is no mistaking the meaning conveyed to the general public by this statement, as witness the remarks made by Sir James Kitson at a meeting in the Colne Valley last Saturday, briefly referred to in your "Observatory" column on Monday, viz., "that amongst the sufferers from anthrax in Bradford there have been no abstainers." In view of the doctor's remarks having conveyed to the public the impression that anthrax victims are all more or less alcoholics, we feel that we have a right to ask him for evidence in support of his statement. And in doing so we hope that he will furnish us, and the public generally, with the number of fatal cases, their occupations, and the period of time covered upon which he has based his conclusions. We hope that Dr. Eurich really has not made such a general and unqualified statement, but if he has we respectfully beg to say that it is erroneous and not borne out by facts. We as woolsorters feel that the publicity given to the above statement, the circulation of which it is now impossible to stop, will inflict upon us an unwarrantable injustice, because our experience of fatal anthrax cases amongst sorters affords unmistakable proof that the vast majority of the victims have been men of temperate habits or total abstainers. If no modification or qualification of this general statement is forthcoming we shall feel constrained to collect and tabulate details of all fatal cases amongst sorters during the last twenty-five years, which we feel confident will prove its inaccuracy.—I am, etc.,

T. GRUNDY, Secretary,
National Union of Woolsorters.

Bradford, March 7th.

PARLIAMENTARY.

In the House of Commons on Monday, March 19.

Vaccine Lymph.

In reply to Sir W. Collins (St. Pancras, W),

Mr. Burns (Battersea) said:—The lymph supplied from the National Vaccine Establishment is, in all cases, derived direct from the calf, has been passed through a series of calves, and is in no instance directly derived from the artificial inoculation of calves with human small-pox. The usual method of renewing lymph for supply from the establishment is by vaccinating calves with vaccine lymph obtained from children, but it cannot be stated that this is always so.

In the House of Lords, Tuesday, March 20.

Poisons and Pharmacy Bill.

In moving the second reading of this Bill,

The Earl of Crewe said that the Bill had resulted from a considerable amount of discussion, and was similar to the measure which the late Government had intended to introduce. The first clause incorporated a number of additions which had been made to the schedule of poisons in the Pharmacy Act of 1868. The second clause modified the conditions for the sale of poisonous substances used by agriculturists and horticulturists. In districts where there were no chemists' shops much inconvenience was experienced in obtaining such substances as sheep-dip and the various sprays used for destroying insects and fungi. The draft regulations under this clause were ready, and would soon be issued. The third clause provided that, when any person carried on a chemist's business in more than one shop, it should be compulsory to appoint qualified chemists to look after the business in these other shops. Clause 4 dealt with the chemists' shops that were carried on by companies, and that were to be found chiefly in the poorer districts of big towns. It had been found impossible to meet the demand that every one interested in such a company should be a qualified chemist, but in the interests of the public it was provided that in every such shop there must be a *bona fide* management by a qualified chemist, whose name should be conspicuously displayed. Any breach of this regulation was visitable not only on the unqualified manager, but on the company employing him. It was not the intention of the Government to interfere in any way with the carrying on of these company's shops, which no doubt supplied a public need. The fifth clause gave greater powers to the Pharmaceutical Society and enabled them to recognise colonial diplomas without further examination. Clause 6 related to the sale of the less known mineral acids, and Clause 7 excluded Ireland from the operation of certain provisions of the Bill.

The Earl of Donoughmore said that he had no reason to object to the principle of the Bill. But, in respect of its application to Ireland, he pointed out that Ireland already had a system which they believed carried out the objects which prompted the Government to bring forward this measure. He gave formal notice that in Committee on the Bill he would move that it should not apply to Ireland.

Lord Monkswell said that the Pharmaceutical Society desired to include amendments in Clause 4, making it a little more stringent.

The Marquis of Londonderry pressed the Government to consult the various bodies who had to deal with this subject before the next stage of the Bill was taken.

The Earl of Halsbury believed that the question was much more difficult to handle than the Government seemed to contemplate by the provisions of this Bill. It was quite certain that a large number of poisons were sold. They were not obtained at the chemist's, but next door, at the drysalter's, where any amount of poisons could be bought. The poisons were not sold under the character of medicines, but under common, popular names.

The Earl of Crewe said he would be glad to consult the public bodies and to give close attention to their represe tations.

The Bill was read a second time.

In the House of Commons, Tuesday, March 20.

On the report of the resolution agreed to in Committee of Supply authorising the payment of £10,220,000 for the pay of the Army,

Epizootic Lymphangitis.

Mr. Pgwer (Waterford, E.) said the Secretary for War yesterday disclaimed any responsibility on the part of the War Office for the introduction into Waterford of a South African horse disease through Army horses. But it had been clearly established that the disease had been spread through the district owing to the action of the Army veterinary authority at Waterford in sending the sick Army horses to grass instead of slaughtering them, which had to be done eventually.

Mr. O'Shee (Waterford, W.) said it was quite clear that the Army Veterinary Department did not take proper steps to stamp out the disease. The loss to the people of Waterford had been very great.

Mr. O'Mara (Kilkenny, S.) urged that compensation should be paid for losses incurred.

Mr. Haldane assured hon. members that strict instructions had been giv n to the Veterinary Department as to these horses, and, as a matter of fact, there had been no disease among the military horses in Waterford since October, 1904, and none, he thought, for some time past in other parts of Ireland. Even assuming that the disease was originally introduced from South Africa, there was no evidence to bring home the spreading of the disease to the military horses. The utmost care had been taken to prevent any liability of infection.

REVIEW.

The Journal of Tropical Veterinary Science.

The first number of this new quarterly has come to hand, the subject matter is of the highest scientific importance and, as is natural, deals with surra and other trypanosomata and allied diseases which form such an important part of the tropical practitioner's work. The new journal will not only be of interest and use to veterinary surgeons in the tropics, but to men of science throughout the world and to veterinary teachers and students in Great Britain, as the subject matter dealt with is of great importance and but little known to men in the mother country.

The get-up of the journal is excellent, and reflects the highest credit on the editors and publishe,rs who are especially to be complimented on the clearness of the plates.

The journal should certainly find a place in every scientific library where comparative pathology is studied.

The Journal of Tropical Veterinary Science: Messrs. Thacker, Spink & Co., Calcutta. Price 17/6 per annum.

Immunity in Infective Diseases.—By Elie Metchnikoff. Translated from the French by Francis G. Binnie, of the Pathological Department, University of Cambridge. (Cambridge University Press, 1905.)

In 1901, M. Metchnikoff increased the deep debt of gratitude which medical science owes him by the publication of this work in French. We cannot refrain from

regretting that an English version has not appeared earlier, but Mr. Binnie has now given us a translation well worthy of the original.

We notice the book more to call attention to its existence in our own language, than with a view to criticism. The name of the author, in conjunction with the title, is an ample guarantee of the value of the matter contained in the volume. When we add that that matter is most excellently arranged and lucidly expressed, we have quite sufficiently indicated our opinion of the work, as one which will be found indispensable to every serious student of advanced pathology.

M. Metchnikoff's aim has been to present in one volume a condensed summary of the known facts relating to immunity, and of the principal theories which have been deduced from them.

The vast array of facts, drawn from both the animal and the vegetable kingdom, and the extreme complexity—to say nothing of the frequently controversial nature—of the theoretical matter, combine to render this a task which few men indeed could have accomplished with credit. M. Metchnikoff has performed it in a manner which can only enhance a lofty and enduring reputation. W. R. C.

The Royal Commission on Horse-Breeding.

A meeting of the Royal Commission on Horse-breeding was held at the Royal Agricultural Hall, the Earl of Sefton (Master of the Horse) in the chair.

The judges' report was received as follows:—We report that, taken as a whole, the stallions exhibited showed great improvement over those we have seen shown in former years. Class D showed exceptional merit, and we find that many of the reserve horses were far better than many which obtained premiums in some of the other classes. We were compelled to withhold the premium in Class J, as there was a great want of merit. We find that the majority of the horses had more bone and substance, and truer action, than those of previous years. We are glad to find the Commissioners are giving some particulars of the racing performances of the stallions, and these were of great assistance to us in forming our opinion of the horses, but we would urge that in future the judges should be given the pedigrees of the stallions.—*The Yorkshire Post.*

A Hospital for Animals.

The Committee of Our Dumb Friends' League—a society for the encouragement of kindness to animals—have recently acquired the lease of premises in Hugh Street, Belgrave Road, near Victoria Station, for use as a hospital for animals. Only the animals of the poor—horses, donkeys, dogs, and cats—are to be admitted and treated, and it is claimed that such an institution will prove invaluable to the hundreds of poor people who in London depend for their living upon one horse, pony, or donkey. The animals will be admitted upon the recommendation of subscribers. It is estimated that £1000 a year will be required to put the institution on a self-supporting basis, and the Committee appeal for 1000 subscribers of £1 1s. for that purpose. A number of subscribers and others interested in the scheme were shown over the premises on Thursday afternoon by Mr. A. J. Coke, the Secretary. The position of the various "wards" have been planned under the direction of eminent veterinary surgeons. It is hoped to open the "hospital" some time next month, and efforts are being made to get a member of the Royal Family to perform the opening ceremony.—*The Times*, March 19.

Anthrax in Man at Liskeard.

William Rapson, a young man of 21, in the employ of Messrs. Peake, tanners, of Liskeard, was admitted to the Cottage Hospital on Saturday, suffering from anthrax. He has since been operated on, and is pronounced to be on a fair way to recovery. In the discharge of his duties at the tannery he had the handling of the hides of slaughtered animals, and it is supposed that he first became infected with the terrible disease by touching a pimple on his neck while his hands were tainted with infection from some animal which had died from anthrax. Every endeavour has been made to trace the infected carcass, but without success, and the man himself cannot fix the date. He first became indisposed on Wednesday of last week, and grew worse during the next two days, when a large swelling, which caused him considerable inconvenience, appeared on his neck. Dr. Curtis attended him on Satureay, and, suspecting anthrax, called in Mr. John Dunstan, M.R.C.V.S., of Liskeard, who has made a special study of anthrax in all its forms. The latter took a drop of serum from the malignant pustule, and subjected it to examination, and the the presence of the unmistakable anthrax bacilli was revealed. A sample was also despatched to Sir John M'Fadyean, M.B., C.M., of the Royal Veterinary College, London, who confirmed Mr. Dunstan's opinion. Rapson was then removed to hospital, and at once operated on by Dr. Curtis, the diseased portion being removed with the knife, and the wound treated with strong disinfectants. As a further precautionary measure, a serum was telegraphed for from London, and was injected on Sunday morning. The promptitude of the operation no doubt saved the man's life, as his temperature began to drop immediately afterwards, and and he is likely to make a good recovery. Although anthrax in animals appears to be on the increase, cases in which human beings are infected are fortunately rare in the West of England.

A Ridiculous "Advice Bureau."

We received recently many letters concerning the comic and insulting scheme of a paper called *Answers* for increasing its circulation by exploiting the medical, legal, and veterinary professions. The scheme is dead and a more discreditable one, as well as a more silly one, was never set in motion by any section of the press. The idea was simple enough, and if it had succeeded would, so far as the medical profession is concerned, have resulted in a certain number of medical men robbing themselves and their colleagues for the benefit of the proprietors of *Answers*. Every annual subscriber to *Answers* was, in return for 9s., to receive a book of coupons, on presentation of each of which he was entitled to see a selected lawyer, medical man, dentist, or veterinary surgeon once gratuitously. That was where the subscriber to *Answers* came in: *Answers* came in to the extent of 9s. or some proportion of 9s.; the medical man came in because the introduction to such patients was supposed to be of pecuniary value, although they were to pay no money. Of course, the scheme failed, but as far as medical men were concerned it did not fail because there was no money in it—it failed because members of an honourable profession could not become the secret nominees of a paper; they could not have their merits touted among the public at the expense of their colleagues.

As we feel sure that the same proper spirit must prevail among our legal and veterinary brethren as among medical men, we hesitate to believe the statements made by the editor of *Answers* in issues of that paper dated March 3rd and March 10th. On March 3rd the editor of *Answers* says: "All who have sent along the 9s. subscrip-

tion have received the voucher-books, and many hundreds have already taken counsel and advice of the solicitors and doctors in all parts of the kingdom." On March 10th the editor of *Answers*, speaking of "my Advice Bureau" and what you get for 4s. 9d., says, "my chief medical and legal advisers are still engaged in appointing professional representatives throughout the Kingdom." By March 12th, at any rate, the scheme was a confessed failure owing (we are quoting a letter from the editor of *Answers*) to "the antagonism of a certain section of the legal and medical profe-sions." We cannot reconcile the editorial statements, while the inability of some journalists to understand the responsibilities of the medical profession towards the public was never better illustrated than by this egregious scheme.—*The Lancet.*

Anonymous Letter Libel.

Before Mr. Justice Bigham and a jury at the Leeds Assizes. The plaintiffs were two horses dealers, David Sharp Carr, and a man of the name of Rodwell, who is also a butcher, and resides at Hull; and the defendant in each case was David Rowbottom Sowerby, a Hull veterinary surgeon. The cases were taken separately.

Mr. Scott Fox, K.C., in opening the case for Carr, said his client was the manager for a Mr. Scott, of Carluke, Scotland, of a horse-dealing business carried on in the name of Carr and Co. Carr travelled all over the country buying horses, and amongst the people with whom he had had dealings was Rodwell. At the beginning of last year Sowerby seemed to have acquired a most violent hostility to Rodwell, at any rate, and perhaps also to Carr, for having taken some of his business away from him. Certainly he was hostile to Rodwell, with whom he had had a dispute about an account.

On the 17th April, 1905, the following anonymous letter, posted at Hull, which was the libel complained of, was received by Mr. Scott:—

"Are you aware what class of man that Carr is in your employ. He has one brother doing time, and another one ran away to America to save his skin, and this one is on the same tack. I believe he is buying a lot of horses in Yorkshire, and has a confederate of the name of Rodwell. I heard them scheming how to do you. They were sending or going to send horses to America to his brother, and going to do you for the lot. So you had better be on the look-out. They are getting £20 or £30 on a horse. This man Rodwell pays with his cheque, and then your man gives him one for the lot. You had better look out at once, and close the scene, or you will be done.—A Friend."

It was unfortunately true, proceeded Mr. Fox, that a brother of Carr's had been convicted, but that only added to the cruelty of the libel.

Another anonymous letter, posted at the same time and place, was received by Miss Attwood, of Bexhill-on-Sea, in which the writer suggested that a horse sold to her by Rodwell was unsound.

The plaintiff Carr was called, and said he gave up business with Sowerby because of a letter he received from him, which he had, unfortunately, burnt.

His Lordship: What was it?—He offered me £20 for myself if I would buy some horses from him. Several letters, admitted to have been written by Sowerby, were produced in proof that he was the writer of the anonymous letter to Scott, and his Lordship and Mr. Scott Fox both drew attention to points of similarity.

Mr. Guerin, a hand-writing expert, pointed out others, and said he could scarcely distinguish the writings.

Mr. Short admitted a most extraordinary similarity between the admitted writings and that disputed, but argued that that was not at all conclusive. He emphasised a point admitted by Mr. Guerin, that there was less scope for distinguishing characteristics between the writings of uneducated people than between those of educated people.

The defendant Sowerby went into the witness-box, and swore that he was not the author of the letter, or had anything to do with it. He did not know Mr. Scott, to whom the letter was addressed, until proceedings were instituted.

Replying to his Lordship, Sowerby said he knew Rodwell had not been straight in certain transactions.

His Lordship: And that is what the letter says.

Cross-examined by Mr. Scott Fox, Sowerby said Rodwell had "done a few." He denied trying to bribe Carr, as the latter had stated.

The jury found for plaintiff, and fixed damages at £50.

Rodwell's case was thereupon not contested, and his Lordship, fixing damages by request, put these at £25, with costs.—*The Leeds and Yorkshire Mercury.*

SIR JOHN M'FADYEAN TESTIMONIAL.

Subscriptions received since last acknowledgment:—

Mr. A. H. Berry	21/-	Mr. M. Dugdill	10/6
R. C. Tayler	21/-	W. A. Taylor	21/-
Wm. Dale	21/-	Jas. Storrar	21/-
Chas. Peirce	42/-	R. A. Thrale	42/-
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Chas. T. Parsons	21/-	Ed. Coleman	21/-
Richard Roberts	21/-	F. Trewin	21/-
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Jas. A. Gosling	21/-	Wm. Hunter	21/-
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Subscriptions may be sent to—

W. HUNTING, *Hon. Sec. & Treas.*
16 Trafalgar Square, Chelsea, S.W.

Presentation to a V.S.

Nairobi, E. Africa.

A short while since a most interesting function took place, at which Mr. Stordy, our Chief Veterinary Officer, was presented with a very valuable piece of plate from grateful horse owners. At all times Mr. Stordy has willingly given his services to the public, and during the epidemic of horse-sickness last year, the calls made upon him were very numerous. With his usual suave manner he was ever ready to respond and the present is but a small recompense for the services he rendered. The following is the inscription with the names of the donors:—

Nairobi
1905.
Presented to Mr. R. J. STORDY
by the following grateful
Horse Owners.

J. Ainsworth, C.M.G., B. Allen, Col. F. D. Baillie, J. W. Barth, R. J. Church, A. S. Cooper, H. D. Cooper, H. A. F. Currie, Capt. V. C. de Crespigny, A. E. Cruickshank, Capt. R. W. B. Eustace, J. H. Gailey W. M. Griess, Capt. E. L. Sanderson, Lieut.-Col. E. G. Harrison, D.S.O., A. C. Hollis, D. O. Roberts, Sir Donald Stewart, K.C.M.G. H. A. Quin, F. Watkins.

—*The Times of East Africa*, Feb. 24.

At a smoking concert, held on Saturday evening, March 17, at the Market Hotel, Mr. William Harris, Assistant Veterinary Officer to the Birmingham Corporation, who has recently been appointed to the Indian Civil Veterinary Department, was presented by the employés of the Stable Department and a few friends with a handsome double-barreled Express rifle as a token of the good feeling that has existed between him and the other employées during his five years' tenure of office.

Mr. W. Webb, the oldest employée in the department, presided, and Mr. J. Malcolm, superintendent, made the presentation. Messrs. Webb, Orme, Amiss, Bayliss, and others also expressed their high appreciation of Mr. Harris as a colleague, and their earnest wishes for success in his future career.—*Birmingham Daily Post.*

On March 20th, at 1 Markham Square, Chelsea, the wife of Mr. W. S. Mulvey, F.R.C.V.S., (*née* Mabel Young) of a daughter.

Killed by Skidding Motors.

On Saturday, 17th inst., in the Westminster Coroner's Court, Mr. John Troutbeck held an inquest on the body of William Shipway, 61, a North Finchley cabdriver, in the employ of Mr. Young, of Barnsbury, who died in Charing Cross Hospital from the effects of injuries received in a collison with a motor-omnibus in Regent Street on the 7th inst. According to the evidence the accident was due to the skidding of the omnibus. In reply to the coroner, Arthur King, the driver of the 'bus, explained that the skidding was caused by putting on the brakes too sharp upon a greasy road. The coroner said that was the second fatal case he had had which had arisen in consequence of injuries from motor-'buses. It was quite clear that there were dangers connected with this new traffic—dangers which had not been fully appreciated, and would not be until there was a considerable number of accidents. There was a special danger which was not attached to other vehicles, and that was the danger of skidding. It was for the jury to say whether the driver exercised reasonable care and skill. He must have known that at the spot there was a very considerable cross traffic, and he should have driven with exceeding caution. He did not say this was a case of manslaughter, but it was a case in which the driver should be criticised for the manner in which he drove the 'bus. The jury returned a verdict of "Accidental death, and expressed the opinion that the driver did not use discretion.—*The Westminster Gazette.*

OBITUARY.

Andrew Carnduff, M.R.C.V.S., Girvan, Ayrshire. Graduated, Glas: April, 1882.

Franklin Farrance, M.R.C.V.S., Ashford, Kent. Lond: Dec., 1873.

A shocking accident took place in New Street, Ashford, on Thursday afternoon, March 15th, when a well-known veterinary surgeon, Mr. F. Farrance, was crushed to death against a wall by a motor car. In the early afternoon, about 1.30 the motor car in question came up New Street, from Folkestone, and headed towards the garage of Messrs. Brenchley Bros. and Holman, with the intention of turning. The road all the way up New Street was very slippery and muddy, occasioned by the recent rains and the earth from the trenches opened for the laying down of the new water main. Opposite the entrance to Messrs. Brenchley's works a bridge over the trench was formed by a number of planks, banked up by a quantity of pug, which was very soft and slippery. The motor car mounted the bridge all right, but when the driver put on the reverse gear the wheels refused to grip, revolving in the slippery pug. Suddenly the tyres gripped the solid foundation, and the car shot back across the road and mounted the pathway opposite, catching the deceased in the stomach and crushing him against the wall. The driver had applied the brakes, but they did not have time to act sufficiently. Immediately a number of eye-witnesses ran to the spot and with some difficulty pulled the motor car off the pathway and extricated Mr. Farrance. Dr. Colville soon afterwards arrived, and ascertained that he had sustained severe internal injuries. It was deemed too dangerous to remove him from the pathway, in fact he only lived twenty minutes after the sad affair. The body was removed to the mortuary by the members of the St. John Ambulance Brigade.

The speed of the car was not more than five or six miles an hour. Eye-witnesses attribute the accident to the slippery state of the roadway.

Mr. F. Farrance, who latterly resided at Godinton Road, Ashford, was the son of the late Mr. Farrance, who many years ago kept the Victoria Hotel, Ashford, and previously resided at High Halden. The deceased was an exceedingly clever vet., and a member of the Royal College. He made a speciality of attending horses and cows, and many a farmer in the district can testify to his skill in saving the life of a valuable cow in what seemed a hopeless case. As a great lover and an exceptionally good judge of a horse, the late Mr. Farrance naturally had an aversion to motors, and often remarked that he would not ride in one for a hundred pounds.

Deep sympathy is felt with the deceased's relatives.

At the inquest, held on Saturday, a verdict of accidental death was returned.

—*Kentish Express.*

CORRESPONDENCE.

RE PARLIAMENTARY REPRESENTATION.

Sir,

A month or so ago I had a notice from Manchester stating that I had been nominated as a member of Committee in connection with this matter and requesting me to allow my name to remain.

Since then the matter has often cropped up in my mind as to how this thing could be put on a suitable basis. The Universities of Edinburgh and St. Andrew's return a Member of Parliament, also the Universities of Glasgow and Aberdeen.

Is there any reason why the members of the veterinary profession and the matriculated students attending the various schools should not do likewise?

Let us petition the Government in a body, not begging it as a favour but demanding it as a right.—Yours etc.,

A. Inglis MacCallum.

THE HORSE—ITS TREATMENT IN HEALTH AND DISEASE.

Sir,

Our attention has been called to a letter appearing in your issue of 10th March with regard to the behaviour of one of our representatives who so far forgot himself as to get a special kind of introduction card printed which, to say the least of it, was misleading. Our attention had already been drawn to this incident and the traveller was immediately discharged and the cards destroyed. It seems to us rather unfair for this uncalled for communication to have been sent to you in the face of our action in the matter, and we may say that your correspondent who addressed the letter to you in common fairness to us ought to have given the full reading on the card, which was certainly not entirely confined to the wording mentioned by your correspondent, nor in the manner in which he put it.—Yours truly,

The Gresham Publishing Company.

34 Southampton Street, London, W.C.

PELLETIERINE—AN INQUIRY.

Sir,

In his interesting note on "Bursati" in your current issue, Mr. F. E. Place refers to the use of small and repeated doses of Santonine or *Pelletierine*. It is with regard to the latter drug that I venture to ask him for further details.

I have seen no reports on its use in veterinary medicine, but I *have* seen both the sulphate and tannate of Pelletierine favourably mentioned in manuals of human practice, not as agents for the destruction of filariæ already in the blood stream, but as *tæniafuges*. Indeed, I believe that

pelletierine was described in *The Lancet*, some ten or twelve years ago as the best known remedy for large tape-worms. I think also that the sulphate has been used for some cases of nervous disease.

But whatever the value of this alkaloid in human medicine may be, I believe that few veterinary surgeons have any knowledge of its effects on animals. Mr. Place evidently has, and I, for one, should feel grateful to him for a further and fuller note on its actions, uses, and risks (if any) in whatever form he has used it.—Yours faithfully,

ENQUIRER.

OBJECTIONABLE (?) PUBLICATIONS.

(This and the following letter have been held over from last week)

Sir,

Undoubtedly your correspondent "Moralist" is right in his opinion that your views, as expressed in your leader of the 3rd inst., will be disapproved of by many of your readers. He himself, however, quite distinctly agrees with those views, and I, for one, think he is right there also.

Some of your correspondents have written rather bitterly against Prof. Axe, but it is very noticeable that not one of them has disputed the *merit* of his book which, when we have it in its complete form, will probably rank as the best work of its kind in the language. And, indeed, the very merit of the book seems to be used—by some at least—as an argument for restricting its circulation to the veterinary profession alone.

This method of argument is so utterly selfish that it is rather difficult to reason with those who adopt it. Such counter-arguments as the dissemination of knowledge amongst men, the improvement of the condition and value of horses, or even the prevention of animal suffering, would be of little account in face of one fact, viz., that some horse owners, after reading this book, may treat cases for themselves, and that some veterinary surgeons in consequence may not be able to charge a fee for doing so. But even from this standpoint—narrow and sordid as it is—it is possible I think to defend the book.

There always has been, and there always will be, a demand for books upon the management of animals in both health and disease, which can be read and understood by the average owner of animals. If the men really capable of writing such books will not do so, others far less fitted for the task will attempt it. Now, which sort of author is likely to do most harm to the veterinary profession? I leave the animals and their owners out of the question, as merely existing for the benefit of the said broad-minded and altruistic profession, and await with some curiosity the answers to the query.—Yours faithfully,

MEPHISTOPHELES.

UNQUALIFIED ASSISTANTS.

Sir,

I have read, in your issuse of the 10th inst., the article by Mr. Thomas Lishman, and with your kind permission I should like to reply to *one portion* of the said article, viz., "Unqualified Assistants."

I have no doubt that Mr. Lishman is sincere in what he says, but why should we not be allowed to live? And if we have the necessary abilities and brains, why debar us from so doing?

Take my own case as an example. My parents died when I was quite young, leaving me to fight the battle of existence for myself (I am pleased to say I am none the worse for having had to do so) and as luck would have it I obtained a situation as an office boy to one of the largest practitioners in the Midlands, who was, I believe, one of the first, if not actually *the* first, to use electricity on the dumb animal.

From office boy I graduated to dispenser, and eventually to assistant. Since the death of my first master, who was the winner of the first Coleman Prize (silver) Medal, I have been assistant, branch manager, and *locum tenens*, and in every branch have given entire satisfaction, so much so that in one instance I was offered *an equal share of the practice to stay on*—I have the letter in my possession to prove the statement.

I have performed operations which qualified practitioners either could not or would not undertake. Also, in milk fever cases my success or *luck*—if Mr. Lishman prefers the word, has been all that anyone could desire, for since May, 1902, I have had 61 cases and all but one have been saved, and I have no doubt had I been called in a reasonable time that that also would have been saved. I had no less than six cases at Cambridge some 2½ years ago, and no doubt the practitioner will recognise in a moment who I am when he reads the above statement, and could bear me out in my statement, if he feels so disposed—that his clients were loud in my praises as to the treatment of the animals placed in my care while acting as *locum* for the said practitioner.

I am at present acting as manager for the widow of a lately deceased V.S. and many of the clients have strongly urged me to start for myself in the district and they will give me their support, knowing that I am *not* a Member of the R.C.V.S.

Now, sir, I ask Mr. Lishman, on the face of the above facts, why should I be debarred from doing the work I love?

Trusting you can find space in your next issue for this rather lengthy reply, and for which please accept my apology.—I am, Your faithfully,

"UNQUALIFIED."

THE ART OF ADVERTISING.

Sir,

Garth, in his "Dispensary" of 1699, says:—

"How sickening Physick hangs her pensive head,
And what was once a Science, now's a Trade."

The ancients tried to make medicine a science and failed, whereas in modern times some have attempted to make it a trade and have been successful.

I have read many books, British and foreign, ancient and modern, and fail to see any relative progress made in our professional ethics. It seems to me that all are greedy to devour the lion's share of this world's goods, but the more the individual has got the more eager is he to obtain more, even at the expense of his less fortunate brethren. Why cry progress when there is no progress? Why cry professional conduct when there is no professional conduct, at least in the veterinary profession?

There are certain individuals who cry down another man for doing what they are already doing or would only be glad to do. They do not always adopt bold tactics, but practice the arts of deceit and cunning, reminding one of the poet's words:

"Ah! that deceit should steal such gentle shapes,
And with a virtuous visor hide deep vice."

There are a few in our profession who write books and contribute articles to livestock papers for a living; there are others who do the same, but not for the same ends—they do it merely as an advertisement, and finally there are a few who write books and articles for the veterinary profession only, but still they are reprinted and distributed secretly to other men's clients, or perhaps advertised in live stock, including doggie, papers to advertise their skill with the object of obtaining patronage.

The other day I came across an advertisement of a text-book for final year veterinary students in a live-stock paper, and I began to wonder what use was this book to the lay public when it suddenly flashed across my mind "another advertisement" for patronage!

"The very meanest trade, I'm very sure,
That e'er has been, or is, or e'er will be
In all the world, is that of literature."

PASSERONI.

COMMUNICATIONS AND PAPERS RECEIVED.—Messrs. E. White Wallis, Thos. Lishman, H. A. MacCormack, A. I. MacCallum, J. D. Kerr, T. J. Keech, J. J. Kelly, W. R. Davis, J. Malcolm, The Gresham Publishing Co. "Enquirer."

The Western Morning News, The Western Gazette, The Times of East Africa.